Claim

1. A method for measuring the temperature using a minute size temperature sensing element, as a temperature sensing element comprising a carbon nano tube with a continuous columnar gallium contained with one end opened and the other end closed, characterized in comprising the steps of measuring the gallium length by a transmission electron microscopy in different temperature environments, inserting the temperature sensing element into a subject to be measured in the air, and taking out the temperature sensing element from the subject to be measured for measuring the gallium length by the transmission electron microscopy.